

A B S T R A C T

5 Lightning strike protection system for aircraft fuel tanks made of low electrical conductivity
composite material. The system comprises an electrical conductive thin wire mesh (1) that
covers the whole external surface of the tank outer skin (I) made of composite and a thick
wire metallic mesh (2) overlapping the mesh (1) at a minimum distance of 50 mm to both
10 sides of a row of fasteners (III) joining the said outer skin (I) to one internal part (II) of either
composite or metallic material. Both metallic meshes (1, 2) maintain electrical contact by
their installation/assembly and by means of metallic countersunk head washers (3) connected
to bonding points and set to the gap existing between the fastener (III) and the outer skin (I).
The corresponding fabrication process is also described.